

PATENT COOPERATION TREATY

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17 JUN 2004

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Applicant's or agent's file reference 2002P02867WO		Date of mailing (day/month/year) 28.09.2004
International application No. PCT/DE 03/01900		Priority date (day/month/year) 08.07.2002
Applicant SIEMENS AKTIENGESELLSCHAFT et al		



1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the International preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The Applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purpose of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purpose of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the IPEA/  <p>European Patent Office D-80298 Munich Tel. +49 89 2399 - 0, Tx: 523656 epmu d Fax: +49 89 2399 - 4465</p>	Authorized officer: <p>Barrio Baranano, A</p>  <p>Tel. +49 89 2399-8621</p>
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or Agent's file reference 2002P02867WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/DE 03/01900	International filing date (day/month/year) 06.06.2003	Priority date (day/month/year) 08.07.2002
International Patent Classification (IPC) or national classification and IPC H04L29/06		
Applicant SIEMENS AKTIENGESELLSCHAFT et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets including this title page.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Instruction 607 of Administrative Instructions of the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the report

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement according to Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand 16.01.2004	Date of completion of this report 28.09.2004
Name and mailing address of the IPEA  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0, Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer: Losseau, D Tel. +49 89 2399-7122 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DE 03/01900

I. Basis of the report

1. This report has been drawn up on the basis of the following elements *(the replacement sheets received by the receiving office in response to an invitation according to Article 14 are considered in the present report as "originally filed" and are not annexed to the report as they contain no amendments (Rules 70.16 and 70.17).):*

Description, pages:

1-9 as originally filed

Claims, No.:

1-9 received on 17.06.2004 with the letter of 16.06.2004

Drawings, sheets:

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DE 03/01900

5. ☐ This report has been written disregarding (some of) the amendments, which were considered as going beyond the description of the invention, as filed, as is indicated below (Rule 70.2(c)):

(All replacement sheets comprising amendments of this nature should be indicated in point 1 and attached to this report).

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement
- | | | | |
|-------------------------------|------|--------|-----|
| Novelty (N) | Yes: | Claims | 1-9 |
| | No: | Claims | |
| Inventive Step (IS) | Yes: | Claims | |
| | No: | Claims | 1-9 |
| Industrial Applicability (IA) | Yes: | Claims | 1-9 |
| | No: | Claims | |

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement regarding novelty, inventive step and commercial applicability; documents and explanations to support this statement

1 Reference is made to the following documents:

D1: US2002/073204 A1

D2: EP-A-1229442

D3: WO-A-02/23822

2 The present application does not meet the requirements of Article 33(1) PCT, because the subject matter of claim 1 is not based on an inventive step within the meaning of Article 33(3).

2.1 The document D1 is regarded as the closest prior art in relation to the subject matter of claim 1.

It discloses (the references in brackets relate to this document) a network having communication components which have associated addresses and which communicate with one another using these addresses (paragraph 11), where a plurality of the communication components have objects

(paragraph 37);

and where

a plurality of the communication components have search functions integrated in them for the purpose of ascertaining the addresses of further communication components which have objects (paragraphs 35 and 36); each of these search functions is designed to ascertain the addresses by sending a first search message (paragraph 41) which prompts each communication component reached to return a hit response containing its address (paragraph 44);

and the search function then sends at least one second search message, comprising information about the sought resources, to at least one of the ascertained communication components (paragraphs 45 and 56), and at least one of the communication components which is able to provide one of the sought objects responds to the second search message (paragraphs 54 to 57); and where

- the response to the second search message contains respective specific information about the communication (paragraph 55), and where the communication components which respond to the second search message also forward the second search message to other communication components (paragraph 37).
- 2.2 The subject matter of claim 1 therefore differs from the known network by virtue of said objects which the communication components comprise not being files, as disclosed in D1, but rather resources which comprise communication services.
- 2.3 The object to be achieved with the present invention may thus be regarded as being that communication components in a peer-to-peer network allow not just file interchange but also the use of communication resources in other ascertained communication components of a peer-to-peer network.
- 2.4 However, these features have already been used for the same purpose in a similar peer-to-peer network, cf. document D3 in this regard, particularly page 8, line 13 to page 9, line 3 and page 11, line 15 to page 12, line 5. If the person skilled in the art wishes to achieve the same end in a peer-to-peer network based on document D1, he is readily able to apply the features with appropriate effect. In this way, he would obtain a peer-to-peer network in line with claim 1 without any inventive action.
- 2.5 The arguments of the applicant in the response dated 16.06.2004 to the official written notification dated 18.03.2004 that the person skilled in the art would not be induced to search the communication component found for usable communication services and to send the requisite access parameters are contradicted in document D3 (cf. page 8, lines 17 to 19 in particular, in this regard) since the expansion of the communication possibilities in a peer-to-peer network beyond file interchange is already known from the Internet applications "IP telephony" and "instant messaging".
- 3 Although the independent claim 9 has been expressed as a method claim, its subject matter is nevertheless only a repetition of the subject matter of

apparatus claim 1. Claim 9, therefore, likewise does not meet the requirements of Article 33(3) PCT, for the same reasons.

- 4 None of the dependent claims 2 to 8 contains any subject matter which could meet the requirements of Article 33(3) PCT.

Their subject matters are actually either derivable directly from documents D1 or D3 (particularly the storage of information about usable resources (see D1, paragraph 45) and the use thereof for ascertaining further communication components (see D1, paragraph 37), the detail about the type of network access, bandwidth, location and type and number of available services (see D1, paragraphs 44 and 52)) or comprise simple features without inventive value or known from the general specialist knowledge (particularly the enabling of access to resources, the function of a communication component both as "server" and as "client" (see D1, paragraph 6), the continuation of the search until successful, the setup of a connection to the ascertained communication component).

Certain documents mentioned

Certain published documents (Rule 70.10)

Application No Patent No	Date of publication (Day/Month/Year)	Date of application (Day/Month/Year)	Priority date (<i>Rightfully claimed</i>) (Day/Month/Year)
EP-A-1229442	07.08.2002	22.01.2002	22.01.2001

All claims in the present International Application have a valid right of priority with the priority date claimed 08.07.2002. The document D2 mentioned in the International Search Report can therefore not be used to establish whether the requirements of Article 33 PCT have been met.

However, it seems important to mention that if the applicant were to decide to continue with a European procedure, then the content of this document would be applicable as prior art in line with Articles 54(3) and (4) EPC. It also seems important to mention that document D2, which relates to the novelty, seems to be of particular importance.

Certain defects in the International Application

1. In opposition to the requirements of Rule 5.1 a) ii) PCT, the description indicates neither the relevant prior art disclosed in documents D1 and D3 nor these documents.

Patent claims

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ART 34 AMDT

1. A network, particularly a packet-switching network (VoIP), having communication components (A1 - A4, B1 - B11) which have associated addresses and which communicate with one another using these addresses, having search functions which are integrated in a plurality of communication components (A1 - A4, B1 - B11) for the purpose of ascertaining the addresses of further communication components (A1 - A4, B1 - B11) which have resources, where each of these search functions ascertains the addresses by sending a first search message which prompts each communication component reached to return a hit response containing its address, where the search function then sends at least one second search message, comprising information about the sought resources, to at least one of the ascertained communication components (A1 - A4, B1 - B11), and where at least one of the communication components (A1 - A4, B1 - B11) which is able to provide one of the sought resources responds to the second search message, characterized in that the resources comprise communication services which can be used in the network, with the response to the second search message containing respective specific information about the communication service, and in that the communication components (A1 - A4, B1 - B11) which respond to the second search message also forward the second search message to other communication components (A1 - A4, B1 - B11).

2. The network as claimed in claim 1,
characterized
in that the communication components (A1 - A4,
B1 - B11) can store the details about the resources of
5 further communication components (A1 - A4, B1 - B11)
which (resources) can be used in the network.
3. The network as claimed in claim 1 or 2,
characterized
10 in that the second search message is used to ascertain
the information stored in a communication component
(A1 - A4, B1 - B11) about the usable resources of
further communication components (A1 - A4, B1 - B11),
with the response to this search message comprising the
15 addresses and the use-related details.
4. The network as claimed in one of the preceding
claims 1 to 3,
characterized
20 in that the communication components (A1 - A4,
B1 - B11) can be used to disable or enable access to
individual or all inherent resources by other
communication components (A1 - A4, B1 - B11).
- 25 5. The network as claimed in one of the preceding
claims 1 to 4,
characterized
in that the communication components (A1 - A4,
B1 - B11) can send and/or respond to both first and
30 second search messages.

6. The network as claimed in one of the preceding claims 1 to 5, characterized in that the search function of a communication component (A1 - A4, B1 - B11) sends at least one first search message and continues to send second search messages until a sought resource has been found in the network and the information transmitted in the response to one of the second search messages allows the use of the resource.

7. The network as claimed in one of the preceding claims 1 to 6, characterized in that the addresses of communication components (A1 - A4, B1 - B11) which (addresses) have been obtained from the hit response and from the response to second search messages can be used to set up communication links.

8. The network as claimed in one of the preceding claims 1 to 7, characterized in that the response comprises the type and number of available services and also the type of the inherent network access, including bandwidth and availability, and the location information.

9. A method for autonomously administrating a network, particularly a packet-switching network, having communication components (A1 - A4, B1 - B11) which have associated addresses and which communicate
5 with one another using these addresses, having search functions which are integrated in a plurality of communication components (A1 - A4, B1 - B11) for the purpose of ascertaining the addresses of further communication components (A1 - A4, B1 - B11)
10 which have resources, where each of these search functions ascertains the addresses by sending a first search message which prompts each communication component (A1 - A4, B1 - B11) reached to return a hit response containing
15 its address, where the search function then sends at least one second search message, comprising information about the sought resources, to at least one of the ascertained communication components (A1 - A4, B1 - B11), and
20 where at least one of the communication components (A1 - A4, B1 - B11) which is able to provide one of the sought resources responds to the second search message, characterized
in that the resources comprise communication services
25 which can be used in the network, with the response to the second search message containing respective specific information about the communication service, and
in that the communication components (A1 - A4,
30 B1 - B11) which respond to the second search message also forward the second search message to other communication components (A1 - A4, B1 - B11).